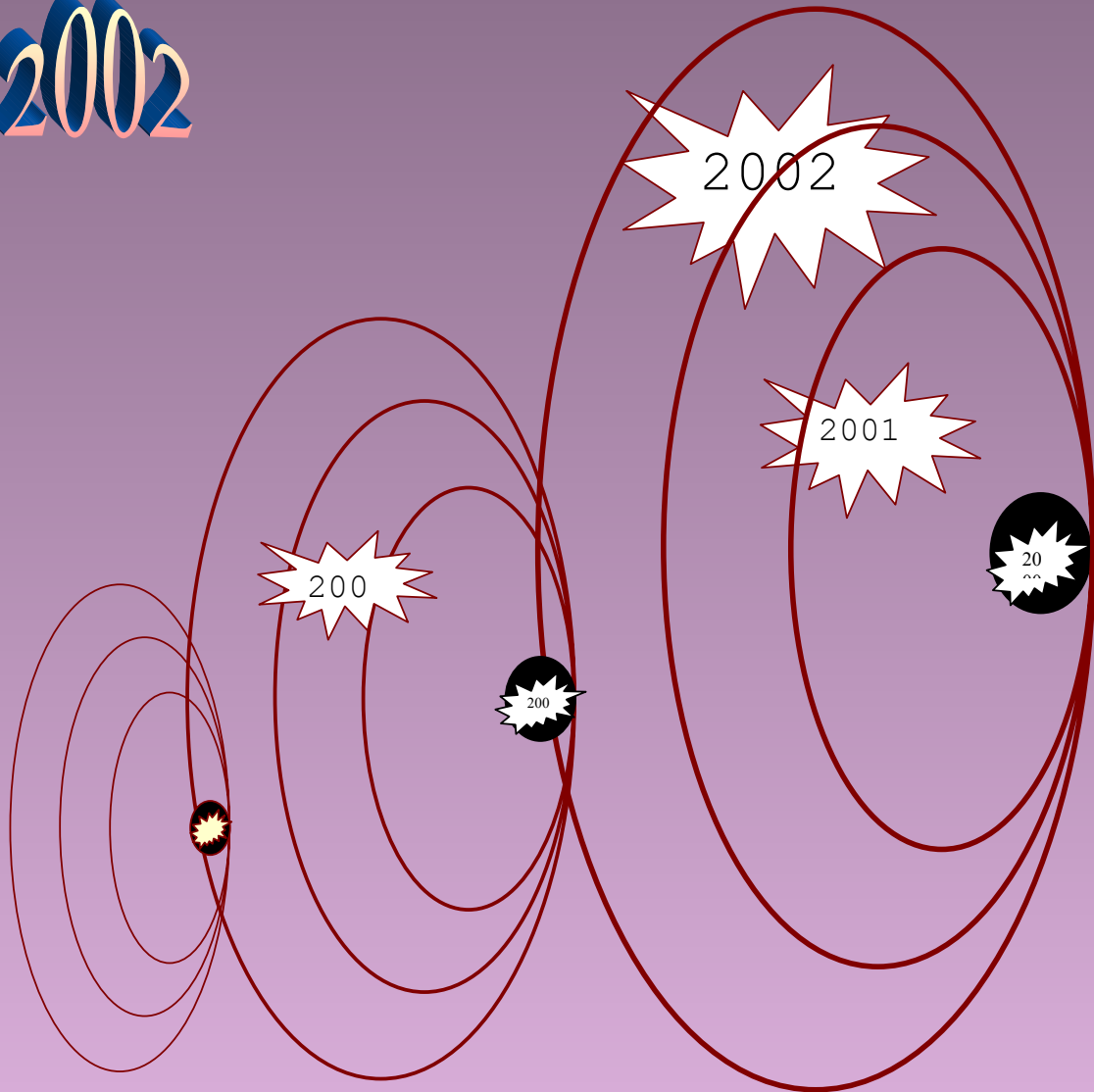


# Annual Report

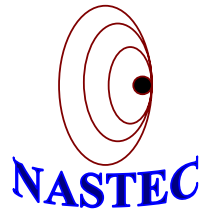
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# Moving Forward

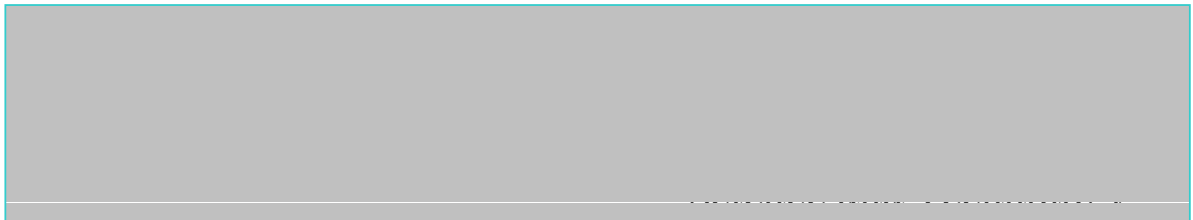
**National Science and Technology Commission**





NATIONAL SCIENCE AND  
TECHNOLOGY COMMISSION

ANNUAL REPORT  
**2002**



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## ABOUT US

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We are a creation of  
the Science & Technology Act No.11 of 1994.  
Our objective is to:  
Promote the use of  
Science & Technology  
as an integral part of our economy  
and thereby  
foster S & T activity,  
Support the development of Indigenous Technology,  
Ensure the production of high calibre Scientists,  
Provide equal opportunities  
and encourage and strengthen the  
appreciation for S & T with a view to improving  
Quality of Life,  
Alleviating Poverty,  
Developing Self Reliance in S&T capability  
and  
involving Scientists and Technologists  
in the  
Formulation of Policy and Decision-making

# Chairman's Message

“There is no such thing as a fixed policy, because policy  
like all organic entities is always in the making”  
Lord Salisbury

It is now three years since NASTEC commenced functioning. The S&T Act was signed in April 1998, and the “fuzzy” phase of appointing the Commission, the Chairman and the Officers took time until March of 1999. It need not have taken this long. But the ground situation was this. Although the Act was passed in 1994 and “activated” in 1998, its shortcomings became evident right from the outset. The mode of funding, its dependence on the vicissitudes and variations of the attitudes of the General Treasury, its subjugation to public administrative directives which had been designed and dedicated towards different purposes during a distant age long past, all made a mockery of the objectives, powers and functions, the S & T Act assigned to NASTEC. Methods had to be found to circumnavigate this cobweb of bureaucracy, and intent, purpose, and some political will, made progress possible.

It was clear that if science was to progress, and the country was to benefit from purpose directed policies for science and technology, then, radical changes were needed, and a strong political will to make them happen.

Those in power cannot shrink from the choices that technological advances could pose for the benefit of the country. In the globalised world we as a small nation have to strive to thrive, not merely to exist. Other nations that were less fortunate than us in the post-world war II period have now shown the way. A competitive level of Science and Technology will be the only available safeguard against a downslide in economic, health, and social standards.

Accordingly, policy initiatives in Science and Technology will indeed be crucial. This is where the services of NASTEC as the apex body committed towards the development of policy assumes an important role.

Lord Salisbury noted that: “**There is no such thing as a fixed policy, because policy like all organic entities is always in the making**”. Science and Technology rides on a fast moving front. Their impact and implications, still less their effect and manifestations, are difficult to relate to a stock of public policy. So it is essential, that public policy formulation in this age, ensure that the best scientific and technological thinking is reflected *in* policy. Furthermore, policies *for* science and technology, must be aligned with the requirement that dynamic flows of knowledge will be encouraged. Mindful of this, and towards developing policies in accordance, NASTEC selected patterns of policy development, which are reflected in the two serial biennial Sri Lanka Conferences on Science and Technology designated BICOST - I and BICOST - II staged in 2000, and 2002. BICOST - I addressed the issues related to the Role of Science and Technology within the concept of **SUSTAINABLE DEVELOPMENT**. BICOST - II addressed the issues relating to the development of the **INFRASTRUCTURE** for such development.

The two conferences BICOST - I and II, represented landmark events in strategy with regard to policy development. For the first time, in this country, scientists, technologists and all the “actors” in the policy-making and implementing arena were brought together to develop the policy guidelines and implementation strategies. The details are described elsewhere.

Formulating effective and timely policies that have science and technology implications, and are relevant to the current context in the country, is a very complex undertaking.

NASTEC managed to convince the community of scientists and technologists that although policy-making was difficult, it was worthy of

their active engagement. This was difficult as the inevitable impression of lack of political will in their implementation was pre-eminent in the minds of all scientists and technologists. Nevertheless the BICOST – I & II were a considerable success as a unique event, and productive too. As a result the publications in relation to BICOST - I & II are the most valuable policy documents in the country in relation to steps to be taken, if we are to get on with the desired development exercise.

The problems faced by the country are such that they require cross-disciplinary analysis and cross-sectorial action. But the country is not geared that way either in the public sector, the private sector or in academia. So this initiative by NASTEC, through BICOST was an initial move in that direction. However the one gigantic problem remains with us; the total lack of a sustained political will and a focused interest in the building of a secure scientific and technological capability and competence within the country. This must ideally take the form of person-oriented interest, and institution-oriented interest, as well as an interest in seeing the nation benefit from the progress in global science and technology. We must see that our personnel are not encumbered in professional development, are adequately appreciated and remunerated, are able to interact easily with the global scientific community, and are entrusted with leadership and management of funds delegated for science and technology. This end is not served by the political leadership. It has hardly been so served, since independence. This lack of a political vision and therefore any will in the desired direction has manifested itself in all the ills that impede the progress of our R & D Institutions, and are the prime reasons why our scientists are driven from their home situations to greener pastures. It is also partly responsible for disinterest in a career in science among the young students of the day. The fact hardly augurs well for the country in the future. The world today is one that acknowledges the power of knowledge, and scientific and technological know-how is the most valued knowledge of all. Knowledge

is regarded as the economic driving force of tomorrow.

So to return to the problems of management of science and technology of the day, some new ideas have to be forged and put in place. Perhaps management of our R & D institutions by “Corporatisation”, as opposed to “Privatization”, may be considered. This may skip the bureaucratic yokes of the treasury and public administration, and even that of politicization. In this strategy the R & D Institutions will be still owned by the government, the people will still be the shareholders and provision of facilities will be the responsibility of the government and the private sector. The management will be by professionals appointed from the private as well as the public sector. And all the executive powers should be with the Governing authority of the Corporate body.

*“Money makes the world go round”* says the song in the **Cabaret**. This is also true for the development of a science and technology culture in the country. Significant resource commitments are needed in both public and private sectors if research and development are to begin to provide the level of innovation that is needed to fuel future prosperity. But in Sri Lanka at this time there is much demand for the meager available resources. Science and Technology do not stand alone in the resource-investment line, and the line is a long one. But given the neglect of this sector for well over a half century after independence, and the utility of the S & T dimension in Defense, Trade, Commerce, Industry, Agriculture, Education, Health, Environment and even Foreign Affairs, the investment in this has one feels the highest priority. If the political leadership sees it this way the implementation of the recommendations of BICOST – I and II, the result of the deliberations of so many, will have been worthwhile.

R.O.B. Wijesekera

# Director's Statement

**"Just as countries need a strategy for investing in health and education, countries need a strategy for building the scientific and technological capacity of the population"**  
says Prof. Jeffrey Sachs, the World renowned Economist.

Once again it is my privilege and pleasure to present the Year 2002 Annual Report of the National Science and Technology Commission. Like in the past year, we at NASTEC continued to work towards our goals and objectives of promoting the use of S&T and in involving scientists and technologists in decision making and policy formulation, with limited human and financial resources.

The major event of the year was BICOST-II held in September, on the theme 'Role of S&T in Infrastructure development'. As in the previous occasion the Conference brought together scientists and technologists of all hues; administrators, managers, decision makers etc. from across traditional discipline boundaries. This event unique to NASTEC, once again provided a forum for the discussion of science and technology in Sri Lanka in relation to the goals and objectives set out in the S&T Development Act of 1994. The final outcome of the Conference which will be an Action Plan for the development of S&T in infrastructure development will be presented to the Government and relevant S&T institutions in early 2003.

We have also been busy organizing many workshops and symposia on subjects of particular interest to the S&T community and not adequately handled elsewhere. Although they vary widely in content and approach they are of practical significance, and important for the development of a S&T culture in the country, leading towards a sustainable development and economic prosperity. Topics covered included 'Leadership and Vision', 'Priority Research Areas and Future Research Directions', 'Research Methodologies', 'Research Ethics' and 'Stress Management'. The workshops were held through the committed and active participation of the Young Scientists Forum and the Senior Scientists Forum. Both forums have been

expanding and have performed exceptionally well, with more scientists and technologists seeking membership and participating enthusiastically.

On the International scene NASTEC has taken a major step forward. We have been designated the National Focal Point for two International groupings, the NAM S&T Centre (Centre for Science and Technology of Non-Aligned and other Developing Countries) and BIMST-EC (Bangladesh, India, Myanmar, Sri Lanka, Thailand - Economic Cooperation). The NAM S&T Centre is an Intergovernmental organization with a membership of 40 countries spread over Asia, Africa, Middle East and Latin America. The centre is engaged in implementing a variety of programmes including workshops, meetings, training programmes etc. providing opportunities for scientists to develop their S&T capabilities. BIMST-EC, the regional grouping of Asian countries having access to the bay of Bengal is expected to promote technology transfer amongst member countries. NASTEC as the Focal Point for the Technology sector in this regional grouping has been actively involved in meetings, workshops and seminars related to Economic and Business Forums of BIMST-EC.

The NASTEC's System of Consultation has flourished well and has yielded valuable results. Through Expert Study groups we have worked towards the development of a number of policy initiatives. A National Policy on Biomedical Ethics as it relates to New Genetic and Assisted Reproductive Technologies in Sri Lanka and the Capability Assessment and Development Instrument are two of the major Consultations that have been completed and now ready for implementation. A few of the other important issues being addressed are: the identification of factors inimical to the

development of S&T in Sri Lanka and proposed remedial measures, developing a national strategy for incorporating traditional knowledge and practices into the mainstream development planning processes and the development of a science budget for the country.

On a slightly sad note, we bid farewell to our founder Chairman Dr. R.O.B. Wijesekera in December who wanted to 'call it a day'. He has been the leading force behind NASTEC's recent achievements. His foresight and initiatives helped NASTEC advance in the right direction. We at NASTEC will miss him very much. We also bid farewell to our receptionist cum telephone operator Miss. Amali Cooray who moved out to better her prospects.

Finally, I would like to pay a special tribute to the staff of the NASTEC Secretariat and the three Research Assistants for their dedication, commitment and expertise without which none of our achievements would have been possible. On behalf of the Commission, I would also like to say 'Thank you' to the Sri Lankan scientific community and the corporate sector for their widespread support and confidence which has contributed immensely to NASTEC's strength and success. We at NASTEC will continue to strive towards our objectives but at the same time we expect the scientific community to be active too and pressurize the governments of the day to implement the plans and policies for the betterment of our country and its people.

M.C.N. Jayasuriya

### From the BICOST - II Photo Library



*The NASTEC Team - staff and well wishers at BICOST - II*



*NASTEC staff at work - preparing for the Conference*

## NASTEC in a Nutshell

We are the Policy formulating and Advisory body for Science & Technology in Sri Lanka. We have been in operation from 01 April 1998 when the S & T Development Act No.11 of 1994 was gazetted. The National Science & Technology Commission thereafter was formally inaugurated on 06 December 1998.

### Our Commission

NASTEC is governed by a Commission that consists of the Chairman and six Commission members who have distinguished themselves in the fields of Science, Technology, Agriculture, Commerce and Industry. The Commission members were appointed by H.E. the President, in consultation with the Minister, in mid 1998 and then reappointed in 2001.

### Powers of the Commission

The Commission has the power to:

- ◆ Appoint study groups or committees as necessary for the proper discharge of functions
- ◆ Request and receive information relating to scientific and technological activity, from individuals, and bodies of persons, to analyse such information and recommend priority areas for future development
- ◆ Monitor the progress of projects and programmes in Science & Technology Institutions
- ◆ Prepare rules for Sri Lanka Conference on Science & Technology with the concurrence of the Minister
- ◆ Enter into agreements with the approval of the Minister for co-operation with institutions abroad having objects wholly or partly similar to those of the Commission
- ◆ Submit a report of the work done by the Commission during the year before March 31<sup>st</sup> of the following year
- ◆ Appoint a secretary and such other officers and servants as may be necessary for proper discharge of functions



*The NASTEC Secretariat is located at No.2, Galpotta Road, off the main Colombo-Nugegoda Road in Nawala, Rajagiriya. It is about 10 km from Colombo Fort and easily accessible by public transport via bus route No. 176 from Borella. The Secretariat is in close proximity to Rajagiriya and Nugegoda townships and Research and Development Institutes such as ITI, MRI, PGIM and the Open University*

## Commission Members

Our Commission members are as follows:

**Vidya Jyothi  
Dr. R.O.B. Wijesekera  
(Chairman)**

Natural Products' Chemist; at MRI and CISIR (1952-1976); Manager WHO Task Force for Research on Plant Fertility Regulating Agents (1978-1980); Special Technical Advisor, UNIDO for Technical Assistance Programmes (1980-1991); Consultant to GTZ and UNIDO; Chairman, CISIR (1994-1998).

**Deshamanya  
Dr. Gamani Corea**

Economist; Director, Economic Research, Central Bank (1960-1964); Permanent Secretary, Ministry of Planning & Economic Affairs (1965-1970); Deputy Governor and Senior Deputy Governor of the Central Bank (1970-73); Ambassador of Sri Lanka to the European Economic Community (1973); Secretary General of the United Nations Conference on Trade & Development (UNCTAD) (1974-1984). Chancellor, Open University of Sri Lanka (since 1981).

**Prof. (Mrs). S. Jayaweera**

Educationist; Professor of Education, University of Colombo (1974-1981); Advisor, UNESCO on Teacher Training and Equal Access of Women for Education Programme, Nepal (1980-1982); Consultant, UNICEF on Teacher Training and Education of Girls & Women, in Nepal (1982-1983); Consultant, UNESCO, UNICEF, UNIDO and ESCAP; Joint Coordinator, Centre for Women's Research (1984); Emeritus Professor of Education, University of Colombo

**Deshamanya  
Prof. A. Koor**

Botanist; with expertise in Plant Cell Biology; Research Scientist of CNRS, The Sorbonne, France; Representative for Cell Biology, 'Comite National de le Recherche Scientifique', France (1967-1971); Presently Science Advisor to H. E. the President of the Democratic Socialist Republic of Sri Lanka

**Deshamanya  
Dr. C R Panabokke**

Soil Scientist; Director of Agriculture, Department of Agriculture (1979-1982); Senior Research Fellow, International Service for National Agriculture Research (1982-1983); Irrigation Agronomist, International Irrigation Management Institute (1985-89); Research Fellow IIMI-SLFO (1989-1998); Chancellor, University of Sabaragamuwa (since 1999)

**Vidya Jyothi  
Prof. K.K.Y.W. Perera**

Engineer; Emeritus Professor University of Moratuwa; Founder Chairman, NERD Centre (1974-1977); Chairman, CEB (1977-1989); Secretary, Ministry of Power and Energy (1981-1990); President, Institute of Engineers, Sri Lanka (1985-1986); General President SLAAS (1989); Chairman, Arthur C. Clarke Centre for Modern Technologies (1992-1997); Director, ADB Personnel Development Project (1998-2001), Secretary, Ministry of Power and Energy (2002 to date).

**Prof. U.T. Vitarana**

Virologist; Director of MRI (1983-1994); Consultant Virologist for WHO; Advisor, Ministry of Science & Technology (1998-2001); Professor of Microbiology, University of Sri Jayewardenepura (from 1995 to date)

## Our Objects

- ◆ To promote the use of S&T as an integral part of the effort to achieve rapid economic development and improved quality of life and to alleviate poverty and to involve scientists and technologists in the formulation of policy and in decision making
- ◆ To foster scientific and technological activity in all its aspects with a view to developing self reliance in scientific and technological capability, and to ensure the allocation of a reasonable proportion of the gross national product for S & T activities
- ◆ To support the development of indigenous technology wherever feasible whilst promoting the import, adaptation and assimilation of technology for rapid growth in industry, agriculture and services
- ◆ To ensure that institutions of higher education and technical education and research institutions produce scientists, technologists and technicians of high calibre and competence and to secure the provision of incentives with a view to ensuring their retention in Sri Lanka
- ◆ To provide adequate opportunities for all persons to acquire a basic education in Science & its practical applications
- ◆ To cultivate among the people an appreciation of the value of science, scientific method and technology and of the integral role that science plays in modern society
- ◆ To disseminate the benefits of science & technology activity to all sectors of the people
- ◆ To encourage and strengthen cooperation in S & T between Scientists in Sri Lanka, and between scientists in Sri Lanka and Scientists outside Sri Lanka, and to provide access to global scientific and technological knowledge and activity
- ◆ To develop the capability to continuously plan, evaluate and review strategies, legislation, and the institutional framework for S & T in Sri Lanka
- ◆ To identify priority areas of S & T likely to be of benefit to Sri Lanka and to promote R & D in such areas

Accordingly, **Our function** is to advise the government on Policies and Plans for the Development of S & T in Sri Lanka with regard to;

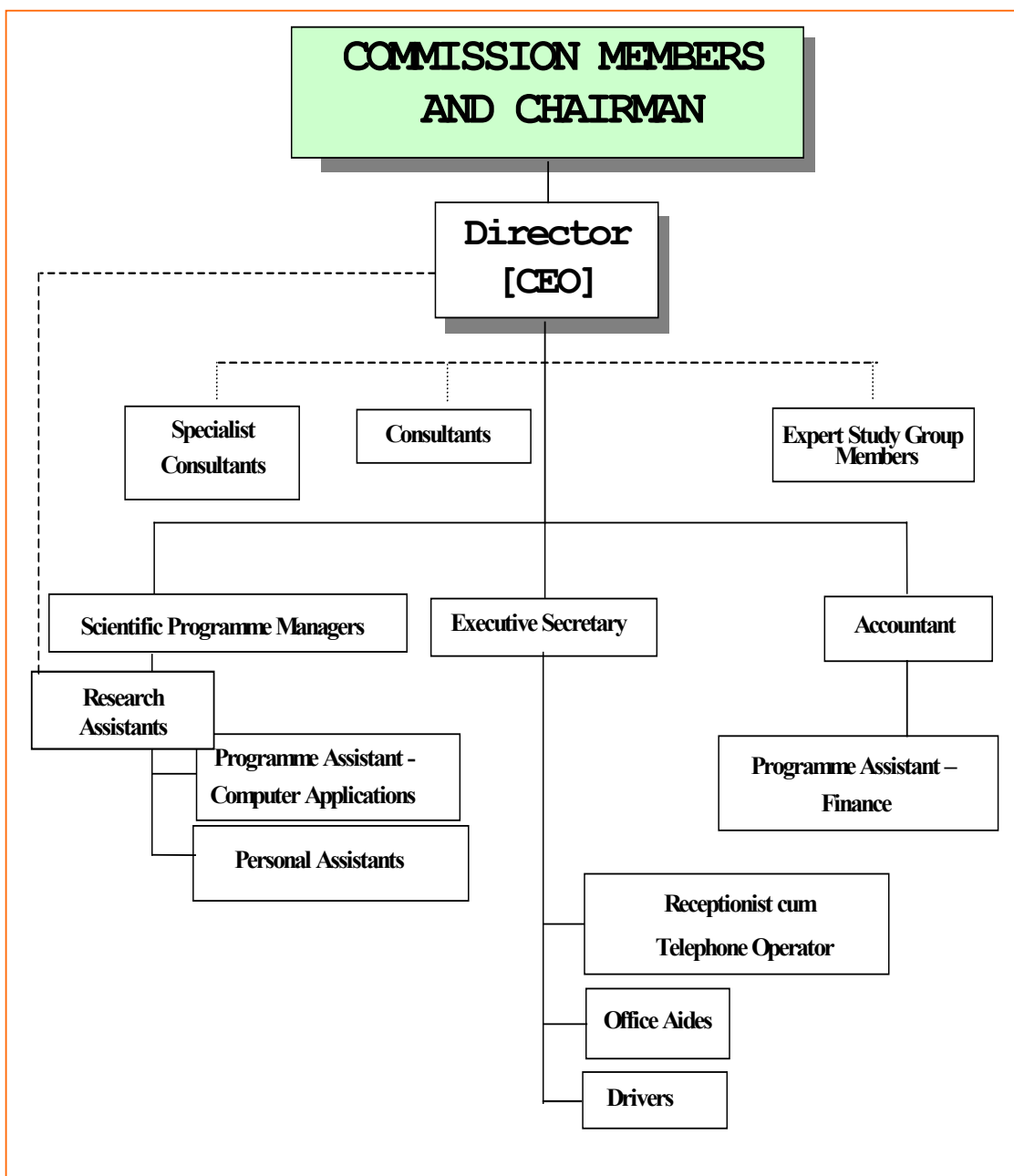
- ◆ Economic growth,
- ◆ Efficiency and Competitiveness of Industry, Agriculture and Services,
- ◆ Health, Nutrition & Poverty Alleviation with a view to improving the quality of life of the people,
- ◆ The Development of Human and other Resources for S & T in consultation with Education, Training and Research Institutions,
- ◆ Management of Natural Resources,
- ◆ Identification and Prioritization of areas of National Importance,
- ◆ Creating an appropriate climate to Build up, Retain and Attract Science and Technology Expertise,
- ◆ Allocating and Prioritizing funds for R & D in S & T Institutions

### **In addition we are expected to:**

- ◆ Submit a Report annually reviewing S & T activities in Sri Lanka in the preceding year by analysing the Effectiveness of Measures for Human Resource Development, Performance of S & T Institutions, Effectiveness of Public Spending on S & T and the use of S & T by both the Private and Public Sectors
- ◆ Review the Progress of S & T Institutions and consult relevant S & T Institutions prior to advising the Government on Policies and Plans,
- ◆ Convene the Biennial conference for Science & Technology with the prior approval of the Minister

# Organizational Structure

Our Organization's functions are approved by the Commission. The Chairman heads the Commission. The Director is the Chief Executive Officer and the Senior Scientific Programme Manager. The Scientific Programme Managers facilitate and manage Expert Study Groups and Consultative Fora. The Executive Secretary handles administrative matters and functions as the Office Manager while the Accountant is responsible for all financial matters.

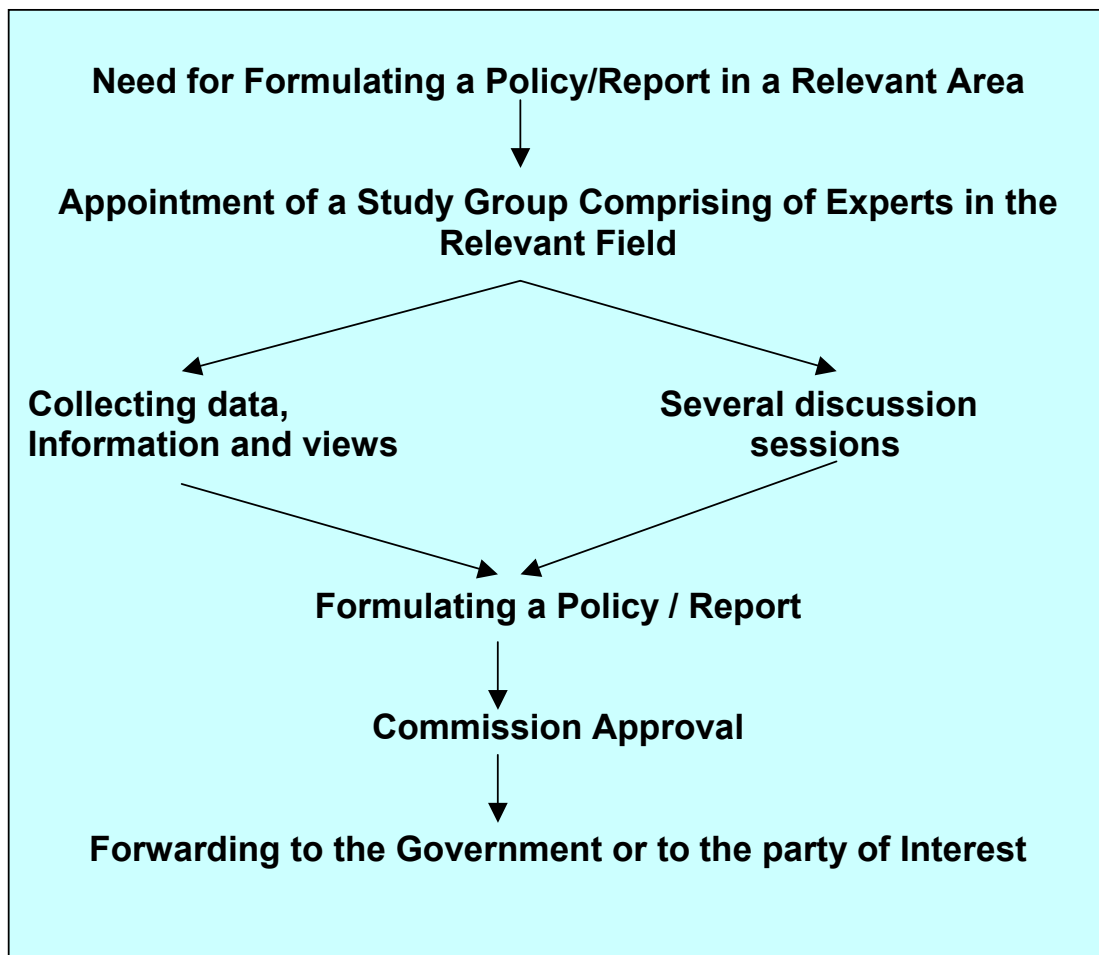


# Operational strategy

NASTECS continues its **System of Consultation** whereby the entire Scientific Community is consulted with regard to matters related to S&T. Within the System of Consultation, NASTECS has three fora; the Young Scientists Forum, the Senior Scientists Forum and the Forum of Directors. While the three fora operated receiving inputs from Scientists of all strata, NASTECS also hosted its **Second Biennial Conference on Science & Technology (BICOST-II)** whereby the main players of S&T were consulted towards the formulation of policy initiatives for incorporating S&T in Infrastructure development.

In addition, based on issues of concern to the S&T community and the need for formulation of policy, the Commission and/or the Minister of S&T, may from time to time appoint **Expert Study Groups/Committees/Consultants** to provide relevant information and thereby ensure proper discharge of functions.

NASTECS also Functions as **Sri Lanka's focal point** for a number of International S&T Centres and affords much needed training, research, expert- exchange and technology transfer opportunities to as many Scientists and Technologists as possible.



## OUR ACHIEVEMENTS DURING 2002

Our efforts during 2002 have mainly been towards Promoting S & T, Encouraging Scientists, Developing Policy Initiatives and increasing S&T awareness among the public and school children, all within the mandate and as specified by the S&T Act of 1994

## PROMOTING S & T

### Sri Lanka Conference on Science & Technology [BICOST-II]

#### Our mandate

One of the main tasks mandated by the Science & Technology Development Act No. 11 of 1994 to the National Science and Technology Commission (NASTEC) is *“to convene the Sri Lanka Conference on Science and Technology biennially, with the prior approval of the Minister, and to provide a forum for the discussion of Science & Technology in Sri Lanka in relation to the objects set out in section 2; and to submit a report to the Minister on such discussion”*

#### Pre-BICOST activities

Accordingly, after BICOST-I, the Commission decided that BICOST-II addresses the Science & Technology requirements of infrastructure for ensuring national development. Thus, **“The Role of S & T in Infrastructure Development”** was selected as the theme for BICOST-II, where only the S & T inputs needed for a stable infrastructure for National development was concentrated on. Thereafter, the scope of infrastructure was researched, and a suitable definition was arrived at. Within the specified definition, the components of infrastructure<sup>1</sup> were specified as **Energy, Communication, Transport, Waste Management and Water**. Even though Education, Finance and Human Resource Development were considered to be important components as well, they were not addressed at BICOST-II. However, when addressing Energy, Communication, Transport, Waste Management and Water, developmental needs of areas such as **Food & Agriculture, Environment, Health, Trade & Industry** were examined as sector specifics.

Infrastructure as defined by the Design and Management of Infrastructure Research Center, Netherlands and modified to suit the BICOST-II theme was redefined as *“The basic framework of services facilities and institutions upon which the growth, functioning and development of a country depends.”*

<sup>1</sup> As identified by the Design and Management Centre of Holland

Therefore, the Background papers or sector specific papers highlighted the S&T interventions that are necessary for building the required infrastructure for national development. The Functional papers emphasized the relevance of each component to the sector specifics and highlighted the gaps in the present S&T system in relation to them. They also anticipated the future thrust areas that need attention in any national infrastructure build up effort.

In order to ensure the proper discharge of preparatory functions for BIOCOST-II, a Steering Committee, Editorial Committee, Logistics Committee and a Finance Committee were appointed. In addition, authors were selected (based on established BICOST procedures – see NASTEC publication on Rules and Regulations for the Biennial Conference on Science and Technology) to assess the progress made after BICOST-I and address both the sector specific and functional papers. As conference documentation, *Concept Papers and Conference Programme - Part -1* of BICOST-II was printed in advance and forwarded to all participants prior to the Conference.

## Proceedings

The Second Biennial Conference on Science & Technology, under the theme "The Role of S&T in Infrastructure Development" was held from the 5-8 September 2002 at the Riverina Hotel, Beruwela. The Conference which was attended by over 130 delegates comprising of many Senior Scientists from Universities and Research Institutions, Senior Administrators of Ministries, Technologists, Decision makers, Managers, and the like, was inaugurated by The Minister for Economic Reform, Science & Technology, Hon. Milinda Moragoda, MP. The Chairman welcomed the Chief Guest Hon. Milinda Moragoda and the two foreign Guests of Honour Drs. T. Ramasami and Mohindra T. Chadha, and briefed the gathering on the purpose and the strategy of the BICOST-II.



*BICOST-II Inauguration at  
the Riverina Hotel,  
Beruwela*



Following the Chairman's address, the Message sent by the Hon. Prime Minister Ranil Wickramasinghe was read out. Thereafter, the Chief Guest, Hon. Milinda Moragoda addressed the conference participants and subsequently opened the floor for discussion. He felt that the time allocated to him would be better utilized if he allowed the delegates of the conference the opportunity to suggest a few concrete solutions to some of the issues, which needed to be addressed immediately. The two guests of honour addressed the gathering following the Minister and Dr. M.C.N. Jayasuriya, Director/CEO, NASTEC finally concluded the inauguration ceremony by delivering the Vote of Thanks and inviting the delegates for the ministerial reception.

The conference programme began on 6<sup>th</sup> September with the Chairman defining the framework of BICOST -II. He stated that the Commission at the last BICOST had decided upon the theme as it is imperative that the appropriate infrastructure is in place prior to a sustainable national development. In developing such an infrastructure, areas which are of crucial importance for survival; Food & Agriculture, the Environment, Health and Trade & Industry designated as *sector specifics* and Energy, Communication, Waste Management, Transport and Water management designated as *essential components* for each of the *sector specifics*, were considered. Quality Management of these areas were also considered a significant S&T intervention for building up of a viable infrastructure.

Dr. Jaanaki Gooneratne then followed with an Assessment of Progress and the catalytic effect of BICOST-I on National Development. She addressed each of the areas that were discussed at BICOST-I and the issues and recommendations made therein and the progress made thereafter. It was emphasized that even though the recommendations of BICOST-I have not been implemented directly, the participants of the conference had seen to it that some of the recommendations did get implemented despite the inadequacy of funds.

The first presentation was delivered by the Guest of Honour Dr. T. Ramasami whose presentation pointed out the importance of infrastructure development in S&T for sustainable development. Following this very insightful presentation, the *Sector Specific* papers were presented by the respective authors; Dr. Nihal Atapattu (Food & Agriculture), Prof. Nalaka Mendis (Health), Dr. L.P. Mendis (Trade & Industry) and Mr. Hemantha Withanage (Environment).



*Dr. T. Ramasami  
Guest of Honour*

Dr. Mohindra Chadha then went on to present his paper on Chemical Research and Environmental Needs. Following the guest speaker, the *functional* papers were presented by Mr. P.G. Joseph (Alternative Energy), Prof. Rohan Samarajiva (ICT), Dr. Amal Kumarage (Transport), Dr. A.M. Mubarak (Waste Management) and Prof. H.D. Gunawardena (Water Management). Each author addressed their relevant area with regard to developing the main sectors. In addition, a paper on Quality Management was presented by Mr. B.S.P. Mendis.



*Dr. Mohindra Chadha  
Guest of Honour*

The 7<sup>th</sup> September was entirely dedicated for group discussions and the formulation of recommendations with respect to Food & Agriculture, Health, Trade & Industry and Environment. The groups looked into the S & T interventions with regard to the *functionals*. By the end of the day each group had formulated recommendations along with the responsible institution and the required time frame to implement recommendations. On the last day of the conference each group presented their recommendations. These recommendations were discussed extensively during the discussion. The conference came to an end with the final Vote of Thanks being given by the Director/CEO, NASTEC.

The NASTEC Secretariat after the conference had a de-briefing and analyzed all the shortcomings and the positive and negative aspects of the same. It is currently in the process of compiling the recommendations and workshop proceedings which will be published as ‘**Documentation of BICOST-II – Part II – Proceedings of the Conference**’ and ‘**Documentation of BICOST-II - Part III - An Action Plan for Implementation.**’



*Participants at BICOST - II*

# Bangladesh, India, Myanmar, Sri Lanka, Thailand - Economic Co-operation [BIMST-EC]

*'To promote the use of science and technology as an integral part of the effort to achieve rapid economic development and to ensure the importation, adaptation and assimilation of technology for rapid growth in industry, agriculture and services',*

we have been designated the National Focal Point for the Technology Sector in the BIMST-EC regional grouping for the three-year period 2002-2004.

## **Background**

Based on each member country's economic strengths and capabilities, Bangladesh, India, Myanmar, Sri Lanka, Thailand – Economic Co-operation (BIMST-EC) was established in 1997 with the aim of achieving technological co-operation in the areas of trade and investment, tourism, transport and commerce, technology, energy and fisheries. This regional grouping was formulated considering the direct access it holds to the Bay of Bengal.

In order to achieve the aims of the technology sector, BIMST-EC holds a biennial Expert Group Meeting and the first of its kind was held in New Delhi, India in December 2000, where the main objectives, mode of co-operation and the priority areas for technology exchange were categorized.

Sri Lanka as the lead country for the technology sector for the three year period 2002-2004 and NASTEC as the Focal Point for the Technology Sector, organized the 2<sup>nd</sup> Expert Group meeting from 07-08 October, at the Trans Asia Hotel, Colombo. The meeting was organized in collaboration with the Ministry for Economic Reform, Science and Technology, the National Chamber of Commerce and the Ceylon Chamber of Commerce, and focused on **Agricultural Technology, Biotechnology, Food Technology, Herbal Drugs and Aromatic Plants, Post-Harvest Technology and Information and Communication Technology**. These areas were chosen after in-depth consultation with various S&T institutions involved in research and development within and outside the Ministry for S&T, and because of the common agricultural background of the BIMST-EC countries and the ever-growing importance of ICT. They were also among the topics identified for co-operation at the 1<sup>st</sup> Expert Group Meeting held in New Delhi, India.

## **Pre-BIMST-EC Activities**

NASTEC, with the objectives of providing opportunities to the private sector and a platform for private sector participation, deriving the benefits by promoting member countries to export technologies and identifying emerging technologies for possible transfer to Sri Lanka and other member countries, organized two workshops, one in the Agricultural Technologies and the other in Information and Communication Technology, prior to the Expert Group Meeting.

## **Workshop to Identify the Supply and Demand in the Transfer of Agricultural Technologies**

This workshop was held on 2<sup>nd</sup> July 2002 at the Hotel Taj Samudra. Stakeholders, both private and public, attended this meeting where they discussed the supply capacity and the demand needs pertaining to agriculture based technologies. As such the programme began with five presentations on Agricultural Technology, Biotechnology, Food Technology, Herbal Drugs & Aromatic Plants and Post-Harvest Technology which highlighted their current status with regard to the available technologies and the technologies necessary for the country. Further to the presentations, discussions were held to determine how to best utilize this opportunity for the benefit of Sri Lanka. In conclusion, it was decided that Sri Lanka, utilizing its available technologies, which are ready to be exported, compile a Technology Catalogue that can be forwarded to the foreign participants.

## Workshop to Identify the Requirements in Information and Communication Technology in Sri Lanka

This workshop addressed the main areas in which Sri Lankan ICT companies would like to see their products developed and exported. Mr. Manju Haththotuwa delivered the Key note address which was titled 'From the pearl of the Indian Ocean to the digital diamond of Asia' where he addressed the current status, our strengths and weaknesses, road map for development and the possible ICT Opportunities in Sri Lanka for BIMST-EC countries. Further to his presentation a discussion followed and a committee was set up to identify the needs and supplies of the ICT sector in Sri Lanka thereby allowing the private sector to make optimum use of the opportunity provided to them via the BIMST-EC grouping.

Following the two workshops, two Technology Catalogues, one on Agro-based Technologies and the other on ICT were compiled, in order to provide information to the BIMST-EC countries of the products/processes/projects available in Sri Lanka for export and collaborative opportunities within the region.

## BIMST-EC Expert Group Meeting

The aim of this Expert Group meeting was to encourage technology co-operation amongst the member countries and thereby establish partnerships and initiate projects for technology transfer amongst them. The meeting was conducted over a period of two days, from 07-08 October, at Trans Asia Hotel, Colombo. Hon. Ravi Karunanayake, Minister for Trade and Consumer Affairs inaugurated the meeting. The first day focused on the presentation of the country papers in both agricultural technologies and ICT. With the exception of Bangladesh, all BIMST-EC countries made presentations. The second day saw the Interactive Working Group Sessions, which resulted in the identification of specific project proposals in both the Agricultural and ICT sectors and joint collaborations on proposed ventures between the BIMST-EC countries. Furthermore, a joint declaration was prepared and signed by the representatives of the BIMST-EC countries, which was later presented at the Ministerial meeting in December.



Hon. Ravi Karunanayake, MP at the Inauguration of the BIMST-EC Expert Group Meeting

As a major outcome of this Workshop a Project proposal on 'The development of small/medium scale agro-industries for fruit production in the rural areas of Sri Lanka' has been submitted to the BIMST-EC Working Group in Bangkok. The project proposes to introduce, a low-cost micro-irrigation system for enhanced cultivation of fruits (banana, papaya and grapes) with medicinal plants as an intercrop, the use of tissue culture for propagation, and the production of value added products (eg. banana chips, crisps etc.) for the local market and for export.



Delegates from BIMST-EC countries at the Expert Group Meeting



## **100 day Revolution Programme**

*'With a view to applying Science & Technology to stimulate economic growth and to enhance the efficiency and competitiveness of Agriculture in order to improve the quality of life of the people', we supported the 100 day Revolution Programme of the Government.*

The National Science & Technology Commission, under the 100-day Revolution Programme of the Ministry co-sponsored a workshop organized by the Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) in Collaboration with Freidrich Ebert Stiftung (FES). In addition, three major activities identified by the Commission namely, Workshop on Future Research Directions, Identifying Priority Research Areas for Sri Lanka and an e-mail Conference on 'Bio-terrorism' were satisfactorily completed within the specified period. Details of these activities are reported elsewhere in this Annual Report.

### **Sri Lankan Agriculture for the Next Decade: Challenges and Opportunities**

The Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI), seeing that Agriculture is an essential component in the Sri Lankan economy and has steadily been earning a diminishing income each year for the past few decades, with the objective of reviewing the recent developments in national and international policy environment (i.e. globalization and regionalization); recognizing challenges, opportunities, social and institutional reforms and other policy reforms in agriculture and research and development; and identifying strategies to encourage investment in agriculture and maintaining sustainability, conducted a workshop on the possible path that Sri Lankan Agriculture should take in the next decade.

The National Science & Technology Commission (NASTEC), which considers Agriculture as an area which requires high priority, and having addressed Agriculture as a key sector of BICOST-I, with a view to using the workshop as a preparatory exercise for BICOST-II (in order to identify the infrastructure needs with regard to Agriculture), co-sponsored and actively participated in the workshop.

The workshop was held on 04<sup>th</sup> April 2002. It was inaugurated by the Minister of Agriculture, Livestock and Samurdhi, Hon. S. B. Dissanayake, MP who delivered the

keynote address highlighting issues such as the momentum of self-sufficiency, sustenance of growth, integration into global economy, improvement of technology, technology transfer, maintenance of the micro-economic status, better social welfare of our country and reduction of rural poverty.

The workshop which consisted of eight major thematic papers, was inclusive of a paper by Dr.C. R. Panabokke, NASTEC Commissioner, on 'Institutional Infrastructure Needs in Sri Lankan Agriculture.' He stressed on the different eras of Sri Lankan agriculture and the institutional framework and the changes that have taken place over the past decades. He also pointed out the importance of carefully examining the present status of each key supporting institution, diagnosing their main constraints, strengths, their base and concentration placed on the up stream and having a system of close monitoring. He further emphasized that research needs should be given more prominence.

In order to identify the crucial issues that would be of importance to BICOST – II, NASTEC was represented by ten key personnel consisting of Members from the Senior Scientists Forum (SSF), Young Scientists Forum (YSF) and the Scientific Programme Managers.

# Encouraging Scientists

*'To encourage and strengthen cooperation in science & technology between scientists in Sri Lanka and to involve scientists and technologists in the formulation of policy and decision making'*

we have formulated three consultative fora encompassing all strata of scientists.

## Young Scientists Forum



The Young Scientists Forum continued to expand in 2002. While the membership increased considerably the Young Scientists were active in many respects. The Forum which functions via a Steering Committee, conducted many workshops and seminars.

They were also involved in e-mail conferencing, initiating a science magazine for school children and the public, taking part in S&T exhibitions and hosting their annual general meeting concurrently with a Workshop at the 58th Annual Session of SLAAS.

### **Workshop on 'Priority Research Areas' - 15 March, 2002**

The first workshop for the year was based on the information that was compiled in 2001 via e-mail on immediate research needs pertaining to the fields of specialization of the Young

Scientists. Considering the inputs received by the forum members, the workshop concentrated on areas of food, environment, biotechnology and health.

### **Seminar on 'Stress Management' - 04 July, 2002**

In order to address how to handle the daily stresses in life, the Young Scientists invited Dr. D.V.J. Harischandra, Senior Lecturer, Department of Psychology, Faculty of Medicine, University of Ruhuna to deliver a lecture in Sinhala on "Stress Management." This lecture was attended by both the forum

members as well as the students of the University of Colombo. Dr. Harischandra who addressed the gathering was most perceptive and provided an opportunity for the participants to raise important issues related to work-stress and stress management.

### **Seminar on 'Research Methodologies' - 09 August, 2002**

The YSF in collaboration with SLAAS Section E-2 and ITI, with the objective of educating junior scientists/researchers on how to write a successful research proposal conducted a well-attended half-day seminar on 'Research Methodologies.' Presentations were made on 'How to write a winning research proposal' by Dr. Jaanaki Gooneratne, 'Using statistics in

scientific research' by Prof. U.S. Amarasinghe, 'Guidelines on successful scientific writing' by Prof. C.B. Dissanayaka and 'Perspective of funding agencies in evaluating research proposals' by Dr. M.C.N. Jayasuriya. In view of the importance attached to this subject area the Commission felt that this exercise should be made an annual event.

## Workshop on 'Science for the Needs of the New Millennium: The Young Scientists Perspective' and Annual General Meeting 5 December, 2002

SLAAS, for the second time invited the YSF to conduct a Workshop at its 58<sup>th</sup> Annual Session held at the University of Colombo. The Young Scientists once again eagerly accepted the invitation and concentrated on the above theme.

At this Workshop Prof. Charitha Pattiarachchi, Professor of Oceanography, University of Western Australia, delivered a guest lecture on 'The Marine environment of Sri Lanka through the World Wide Web.' Thereafter, Dr. K.K.A.S. Yapa, Chairperson - YSF, gave an overview on the 'Progress of YSF; a success story' and Mr. Upul Kulupparachchi, YSF-member, presented a compilation of the documentation on the E-mail Conference on 'Bio- Terrorism.'



Prof. Charitha Pattiarachchi talking on the Marine Environment of Sri Lanka

The afternoon session was on the topic of the day 'Science for the Needs of the New Millennium: The Young Scientists Perspective' where, four forum members; Dr. K.R. Ranjith Mahanama, Dr. J.T.K.V. Navaratne, Dr. Bimali Jayawardena and Dr. K.K.A.S. Yapa presented papers on 'Science Knowledge,' 'Difficulties faced by Scientists in Sri Lanka,' 'What we can learn from other countries' and 'Issues and challenges: Recommendations for the Future', respectively. This opportunity was also used for the election of a new Steering Committee for year 2003.



A Young Scientist making a presentation



Participants at the Workshop

### E-mail Conferences

Two e-mail conferences one on 'Bio-terrorism' and the other on 'Polythene Menace' were conducted based on concept papers written by Mr. Upul Kulupparachchi and Mr. Vasantha Ruba, respectively. The former was initiated because of the importance given to bio-terrorism at that time due to the attack on the twin towers on 11<sup>th</sup> September and thereafter the anthrax scare in the USA. The Young Scientists, who were highly responsive to this subject, have made it possible to complete this conference and the contributions are currently being compiled and will be published as an Occasional Publication of the NASTEC.

# Senior Scientists Forum



The Senior Scientist Forum (SSF), which was formerly known as the Research Leaders Forum (RLF), came into existence in June 2001 with the objective of advising NASTEC with regard to the general views of the Senior Scientists, the defects in the system and the possible corrective measures which need to be adapted. In addition, they are expected to assist the young scientists and the forum of directors with relevant inputs. They also conducted a number of workshops and seminars during the year.

## Workshop on 'Future Research Directions' - 28<sup>th</sup> February 2002

The objective of this workshop was to document the views and opinions of the Forum with regard to the direction in which S&T research should proceed. Considering the importance of the different subject areas along with the available expertise, the steering committee decided to concentrate on areas of Health, Food & Agriculture, Environment,

Infrastructure and Information and Communication Technology. Accordingly, future research directions as foreseen by the senior scientists were formulated and has been utilized as inputs when each of the above sectors and their respective institutions have formulated their research directions.

## Workshop on 'Leadership and Vision' - 26<sup>th</sup> July 2002

The Senior Scientists Forum conducted a half-day workshop on "**Leadership and Vision**" at the Hector Kobbekaduwa Agrarian Research and Training Institute with the objective of provoking thought on qualities and attributes desired in an effective leader of a scientific Institution. Two key speakers, Prof. Uma Coomaraswamy, Vice-Chancellor -Open University, and Dr. Travis Perera, Consultant - Post Graduate Institute of Management addressed the gathering on "Leadership &

Vision - An Overview" and "Professionalism in Leadership" respectively. Qualities highlighted by the guest speakers then formed the basis for deliberations of this workshop where the key areas of concentration thereafter were Qualities desired in an effective leader, Preparation for leadership and the criteria for the appointment of leaders.



Senior Scientists at the Workshops on Leadership and Vision

## Workshop on 'Research Ethics' - 29<sup>th</sup> November 2002

This workshop, which covered Research Ethics in the Medical Sciences, Experimental Sciences and Social Sciences presented by Prof. Susirith Mendis, Prof. M.J.S. Wijeyaratne and Dr. Wijay Jayatilaka, respectively, was aimed at educating the

Scientists and then developing a document outlining the standard of ethics necessary to be observed in conducting scientific research. The members after much discussion arrived at a consensus that a set of National Guidelines for Research Ethics should be formulated.

## Compiling a Directory of Donor agencies

The Senior Scientists Forum also initiated the process for **Compiling a Directory of Donor Agencies** for the benefit of the Scientific Community. At present none of the scientific institutions have a comprehensive list of

funding agencies, which could be referred to by any scientist interested in applying for funds for research. The document will be available soon both as a NASTEC publication and as a CD.

## Forum of Directors

The Forum of Directors, which is the apical arm of NASTEC's System of Consultation, had its third meeting on 13 November, 2002. At this meeting heads of institutions that were present discussed issues such as programme budgeting for R & D, possible national R&D initiatives to enhance the current science budget, cultivating a national capability in biotechnology, and an enhanced method of governance for R&D institutions. In addition, a steering committee of six members was appointed to look into the major issues pertaining to S & T in Sri Lanka. The Steering committee met for the first time on the 12<sup>th</sup> December 2002 and immediately engaged

upon the task of planning for a national R&D budget and programme budgeting for promoting research and development in S&T.



Forum of Directors meeting to discuss programme budgeting and national R&D initiatives

# Developing Policy Initiatives

*"In formulating policies relating to Science & Technology and in implementing such policies, the Minister shall have regard to the objects set out in section 2 and shall consult the National Science & Technology Commission".*

As such, we have been involved in addressing issues which would enhance the status of S&T institutions and thereby ensure better working conditions for Scientists.

## **Inimical Factors affecting S&T**

The Study Group on Inimical Factors Affecting Science & Technology was initiated as a result of a request made by the Minister for Economic Reform, Science & Technology, to look into factors that impede the development of S&T in R&D Institutions and Universities and propose remedial measures to overcome them. Accordingly, NASTEC in collaboration with NSF set up a Study Group consisting of experts from both universities and research institutions. The members of the study group have identified some of the major difficulties encountered by Scientists in research & development and have submitted a draft document. This has been discussed with the Advisor to the Minister, and the final report will be presented to the Hon. Minister soon.

## **Capability Assessment and Development Instrument**

The Capability Assessment and Development Instrument, which was developed in 2001 with the objective of reviewing the S&T institutions in relation to objects set out in section 2 of the Act was tested at the TRI during the said period. The Instrument is designed to address all the components needed to be tested within S&T institutes and is now ready for use. NASTEC intends to use this instrument for evaluating at least two S & T institutes during the coming year.

## **Central Library Service**

The Study group on setting up a Central S&T Library completed their study and forwarded a project proposal for the setting up of the same. The proposal was forwarded to both SIDA/SAREC and NSF for funding. The Commission suggested that in the interim, the study group should address the services aspect, as a contingency plan. Therefore, the study group is currently in the process of compiling a document on the services aspect of the Central Library Services, which could be implemented without major financial commitment.

## **National Strategy for incorporating traditional knowledge into development practices**

In pursuance of our act which states in section 2C 'to support the development of indigenous technology wherever feasible,' and in accordance with section 5, v & vi, NASTEC in collaboration with IUCN - The World Conservation Union - coordinated and facilitated a workshop to develop a National Strategy for incorporating traditional knowledge and practices into mainstream development planning processes in Sri Lanka, from 17-20 September in Dambulla. The expected output of this workshop is the identification of strategies for using indigenous knowledge in the development process, the formulation of a national strategy on indigenous knowledge for sustainable development in Sri Lanka and an implementation plan identifying the responsible national institutions whereby a coordination mechanism is set up to ensure implementation and functioning of strategy.

## **R & D initiative leading to a Science Budget**

The aim here has been to develop programmes that are cross disciplinary and possibly trans-institutional with the objective of building a national R&D capability. In this respect the Forum of Directors have received project proposals which could be grouped into themes where several institutions involving a number of disciplines have been identified. Depending on the theme a single project proposal will be formulated and forwarded to the treasury for funding.

The treasury has already indicated their interest to support a science budget and has impressed on us that funding requirements would be more explicit if institutions were able to group their activities in research development and scientific and technological services under a few well-identified major projects. This would be of great advantage in science policy decision making. Hence, NASTEC is optimistic that funding could be obtained once projects have been identified thematically.

# Enhancing Public Awareness in S&T

*' To cultivate among people an appreciation of the value of science, scientific method and technology and of the integral role that science plays in modern society and to disseminate the benefits of science and technology activity to all sectors of the people and to improve the quality of life of the people,'*  
we have attempted to reach the public via various methods.

## Public Lectures

### **"Ergonomics: Aims & Benefits"**

Ergonomics is the science of interaction between people, the machine and the working environment. In developing countries, even though a necessity, it has not been practiced in most sectors. In order to demonstrate the importance of Ergonomics in increasing productivity, quality, safety, reliability, satisfaction and personal development

Prof. John D .A. Abeysekera, an Industrial Ergonomist, who was visiting Sri Lanka under the Expatriate Scientists Programme of the Ministry for Economic Reform, Science & Technology delivered a thought provoking lecture on Ergonomics on 1<sup>st</sup> July, 2002 at the SLAAS Auditorium.

### **"Our Ocean Environment: Its Role in Climate & Fisheries"**

In view of the oceanic environment having a very large impact on the global climate and fisheries in the Indian Ocean and on Sri Lanka, we organized a public lecture by Prof. Charitha Pattiarachchi, the first and only Sri Lankan

Professor in Oceanography, visiting Sri Lanka under the Expatriate Scientists Programme of the Ministry for Economic Reform, Science and Technology. The lecture was held on 21<sup>st</sup> November, 2002 at the SLAAS Auditorium.

## Radio Programmes

The YSF conducted a radio programme on "Lightning" with the objective of educating the public with regard to the possible safety measure that could be taken in preventing accidents pertaining to lightning. Dr. Chandima Gomes, Senior Lecturer in Physics,

University of Colombo conducted this programme, on 12<sup>th</sup> May, 2002 on 'Vishva Shravani-Swadeshiya Sevaya' (FM 98.3), which we hope served the public to better their knowledge.

## Exhibitions

The Ministry for Economic Reform, Science & Technology conducted a Science & Technology Exhibition, 'Vidatha' at St. Peters College, Negombo, from 28<sup>th</sup> to 30<sup>th</sup> November 2002. The Young Scientists Forum

had a stall which contained posters depicting the career opportunities available to the youth, qualities expected of an entrepreneur, entrepreneur skills/foundation skills etc. They also held a science quiz for school children.

## Nastec Reports & Publications (2002)

1. NSTC/02/BICOST-II/01 (2002) Documentation of BICOST – II (Part I), Science and Technology in Infrastructure Development – Concept Papers and Conference Programme
2. NSTC/02/MISC/01 (2002) NASTEC News Letter, Volume-2 Issue-1, January, 2002
3. NSTC/02/MISC/02 (2002) NASTEC Annual Report 2001, March 2002
4. NSTC/02/MISC/03 (2002) NASTEC Science & Technology Policy Statement
5. NSTC/02/MISC/04 (2002) NASTEC News Letter, Volume-2 Issue-2, July, 2002
6. NSTC/MONO/02/01 National Programme for Herbal Health Care Products
7. NSTC/MONO/02/02 Electronics Industry in Sri Lanka
8. TECHNOLOGY CATALOGUE: for Agro-based Technologies (2002)
9. TECHNOLOGY CATALOGUE: for Information and Communication Technology (2002)

## Workshops/ Seminars/ Conferences

1. Workshop on “Future Research Directions”, at Open University of Sri Lanka on 28<sup>th</sup> February, 2002.
2. Workshop on “Priorities Research Areas in S&T”, at SLAAS Auditorium on 15<sup>th</sup> March, 2002.
3. Workshop on “Sri Lankan Agriculture for the Next Decade: Challenges and Opportunities”, jointly with HARTI, at HARTI Auditorium on 04 April, 2002.
4. Workshop to “Identify the Supply and Demand in the Transfer of Technology in Sri Lanka”, at Taj Samudra Hotel, Colombo on 02<sup>nd</sup> July, 2002.
5. Seminar on “Stress Management”, at the University of Colombo on 04 July, 2002
6. Workshop on “Leadership & Vision”, at HARTI on 26<sup>th</sup> July, 2002.
7. Workshop to “Identify the Requirements of Information and Communication Technology (ICT) in Sri Lanka”, at NASTEC on 30<sup>th</sup> July, 2003.
8. Seminar on “Research Methodologies”, at ITI on 09<sup>th</sup> August, 2002.
9. The 2<sup>nd</sup> Biennial Conference on Science and Technology in Infrastructure Development (BICOST-II) on 5<sup>th</sup> – 8<sup>th</sup> September, 2002 at Riverina Hotel, Beruwela.
10. The BIMST-EC Expert Group Meeting in Trans Asia Hotel, Colombo on 7<sup>th</sup> – 8<sup>th</sup> October, 2002.
11. Seminar on “Research Ethics”, at HARTI on 29<sup>th</sup> November, 2002.
12. Workshop on “Science for the Needs of the New Millennium: The Young Scientists Perspective”, at the University of Colombo on 05<sup>th</sup> December, 2002.

## Popular Lectures

Our Chairman, Dr. R.O.B. Wijsekera was invited to deliver lectures at:

- ◆ The Royal Society of Chemistry (Sri Lanka) on “The Service of Chemistry as a Science” -08<sup>th</sup> February, 2002.
- ◆ The University of Moratuwa (IESL), Management of Technology Course on “Science, & Technology and a Sri Lankan Dilemma” -18<sup>th</sup> June, 2002.
- ◆ The 1<sup>st</sup> Annual Session of The Institute of Chemistry at SLAAS Auditorium on “Integrated Chemical Research to Improve Productivity” - 20<sup>th</sup> June 2002.
- ◆ The Kandyan Reach Hotel, Kurunegala on behalf of Hon. Minister at the Inaugural Ceremony of the World Standards Day – 2002 - 14<sup>th</sup> October, 2002.
- ◆ The Seminar on Education Reform, organized by Ceylon Chamber of Commerce: A Lecture on “Education Reforms to ensure National Capability and National Awareness in Science and Technology” -18<sup>th</sup> October, 2002.

Our Chief Executive Officer/ Director, Dr. M.C.N. Jayasuriya delivered lectures at:

- ◆ SLAAS on “The Role of Scientists and Technologists in Sustainable Development” - 26<sup>th</sup> February 2002
- ◆ PGIA, on “International Funding for Research”, at the Workshop on “Towards Quality Scientific Research”, organized by the Department of Agriculture - 24<sup>th</sup> July 2002
- ◆ ITI, on ‘Perspective of funding agencies in evaluating research proposals’, at the Seminar on 'Research Methodologies', organized by YSF in collaboration with SLAAS, Section E-2 and ITI - 09 August, 2002
- ◆ SLFI, on “Funding for Research”, at the Workshop on “Survey on Research Training in Sri Lanka 1991 – 2000”, organized by UGC & sponsored by SIDA-SAREC - 20<sup>th</sup> August 2002

## Visiting Scientists

- ◆ *Swedish Delegation from SAREC* (24 April, 2002); Dr. Anita Sandstrom, Dr. Mans Felleson, Dr. Anders Clarshall, Mr.Sudas Euhensen, visited NASTEC in order to discuss the present operations at NASTEC and its possible future direction.



*The delegation from  
SIDA/SAREC in discussion with  
NASTEC staff*

- ◆ *BIMST-EC Crew from India* (2 August,2002): India which was the focal point of the BIMST-EC Technology Sector in order to complete their activities for the allocated period interviewed both the NASTEC Chairman and the Director.

# New Initiatives

## BIMST- EC

NASTECS has been nominated as the National Focal point for the Technology Sector of BIMST-EC - Bangladesh, India, Myanmar, Sri Lanka, Thailand - Economic Cooperation - for the three year period 2002-2004.

A meeting of the Technology Sector Expert Group on Technology Cooperation was held from 07-08 October at the Trans Asia Hotel, Colombo, the details of which are presented elsewhere in this report.

## Non-Aligned Movement S&T Centre

In March 2002, the Ministry for Economic Reform, Science & Technology designated NASTECS as the National Focal point for the Centre for Science & Technology of the Non-Aligned and other Developing Countries (NAM S&T Centre).

This made it possible for two Sri Lankan scientists to attend training programmes/workshops on:

- International Workshop on the "The Role of Science Centres in Development Strategies" -30<sup>th</sup> November – 02<sup>nd</sup> December 2002, Culcatta, India (Dr. Nanda Amara Wickramasinghe - Director, Department of National Museum)
- International Workshop on "Development in Microelectronics – Role of VLSI"- 04<sup>th</sup> – 06<sup>th</sup> December, 2002 at MEMS, CRRI, New Delhi, India (Mrs. K.N.D. Moonasinghe, ACCIMT)

# Our Appreciation

**WE APPRECIATE** .....the assistance given to us by the scientific community, especially those who took part in Expert Study Group activities, the Consultative Fora and other NASTEC Committees.

## EXPERT STUDY GROUPS

*Dr. M.C.N. Jayasuriya (Chairman), Prof. Tuley De Silva, Dr. U. Pethiyagoda, Dr. Ravi Pereira, Dr. T. Wettesinghe, Mr. R.T. Guruge – Mrs. Asanki Yatigammana (Convenor) (Formulation of an Instrument for Capability Assessment and Development (CADI) in R & D Institutions)*

*Dr. G. Gunasekera (Chairman), Mrs. D. Talagala, Mrs. D. Warnasuriya, Mrs. I. Mudannayake, Mrs. S. Illeperuma, Mrs. S. Jayasuriya, Dr. G. Kulatunga, Mr. N.U. Yapa – Mrs. Niluka Liyanaarachchi (Convenor) (Formulation of a Project Proposal for Setting up Central Library Service for S & T in Sri Lanka)*

*Dr. U.P. de S. Waidyanatha (Chairman), Mr. Ranjan Rodrigo, Mr. M. Watson, Prof. Priyan Dias, Prof. Athula Perera, Prof. M.T.M. Jiffry, Dr. A.M. Mubarak – Mrs. Amali S. Disanayaka (Convenor) (Study Group on Inimical Factors Affecting Science & Technology)*

## CONSULTATIVE FORA

*Dr. K.K.A.S. Yapa (Chairperson), Dr. Mangala De Zoysa (Joint Secretary), Dr. H.C. Ambawatte, Rev. Pitiduwa Siridhamma, Dr. Krishanthi Abeywickrema (Joint Secretary), Dr. K.R.R. Mahanama, Dr. S.S.P. Silva, Dr. M.T.K. Gunasekera, Dr. Bimali Jayewardena, Dr. Mangala Gunathilake, Dr. Kumari Navaratne, Ms. Chintha Perera - Mr. L.M.M.P. Liyanagedera (Coordinator/Convenor) (Young Scientists Forum)*

*Dr. Shanthi Wilson (Chairperson), Prof. Susirith Mendis, Prof. I. Thabrew, Dr. Abhaya Balasuriya, Dr. Jinadari Soiza - Mrs. Amali S. Disanayaka (Coordinator/Convenor) (Senior Scientists Forum)*

*Prof. Prinath Dias (Chairman), Dr. L.G. Herath, Dr. A.M. Mubarak, Dr. Gamini Seneviratne, Mr. B.S.P. Mendis, - Mrs. Amali S. Disanayaka (Coordinator/Convenor) (Forum of Directors)*

## BICOST-II

*Dr. R.O.B. Wijesekera (Chairman), Prof. Susirith Mendis, Prof. Ira Thabrew, Dr. A.M. Mubarak, Dr. Ranjith Mahindapala, Prof. Nalini Ratnasiri, Dr. N. Somaratne, Prof. H.D. Gunawardena, Dr. M.C.N. Jayasuriya, Mr. L.M.M.P. Liyanagedera, Mrs. Amali S. Disanayaka (Steering Committee)*

*Dr. Nihal Atapattu (Food & Agriculture), Mr. Hemantha Withanage (Environment), Dr.A.M.L. Beligaswatte and Prof. Nalaka mendis (Health), Dr. L.P. Mendis (Trade & Industry) (Sector Specific Papers)*

*Prof. Rohan Samarajiva and Dr. Sujatha Gamage (Communication), Dr.A.M. Mubarak (Waste Management), Prof. H.D. Gunawardena (Water), Dr. Amal S. Kumarage (Transport), Mr. P.G. Joseph (Energy) (Functional Papers)*

*Prof. (Mrs.) R. Raheem, Prof. Nalini Ratnasiri, Prof. Susirith Mendis, Prof. Kshanika Hirimburegama, Dr. Nihal Somaratne (Editorial Committee)*

## BIMST- EC

*Mr. J.T. De Saram, Mr. Chandra Embuldeniya, Dr. Reza Sulaiman, Prof. Priyan Dias, Dr. D.N. Jayatissa, Mr. P. Subasinghe, Ms. Kshenuka Senewiratne, Ms. Varuni Muthukumarana, Mr. Stanley Jayawardena (Technical Committee)*

*Mr. H.M. Tilakaratne (Agricultural Technology), Prof. K. Hirimburegama (Biotechnology), Dr. Shanthi Wilson (Post-harvest Technology), Dr. D. Nugawela (Herbal Drugs/ Aromatic Plants), Dr. Nandani Ediriweera (Food Technology) (Agro-based Technologies Pre-BIMST-EC Workshop presenters)*

*Mr. Manju Haththotuwa (ICT Pre-BIMST-EC Workshop Presenter)*

## HARTI- WORKSHOP

*Dr. Abaya Balasuriya, Senior research Officer, TRI (SSF); Prof. Kshanika Hirimburegama, Senior Lecturer, University of Colombo (SSF); Dr. Jaanaki Gooneratne, Senior Research Officer, ITI (SSF); Dr. Mangala de Zoysa, Head, Dept. of Agricultural Economics, University of Ruhuna (YSF); Dr. C. M. B. Dematawewa, Senior Lecturer, University of Peradeniya (YSF); Dr. Ranjith Mahindapala, Head, Biodiversity Unit, IUCN; Dr. L. Samarappuli, Senior Research Officer, RRI (SSF); Dr. M.C. N. Jayasuriya, Executive Director, NASTEC; Mr. L.M.M.P. Liyanagedera, Scientific Programme Manager, NASTEC; Mrs. Amali S. Disanayaka, Scientific Programme Manager, NASTEC; Mrs. Lakmini Seneviratne, Research Assistant, NASTEC (NASTEC nominees for Workshop on Sri Lankan Agriculture for the Next Decade)*

# Staff News

Dr. M.C.N. Jayasuriya was appointed as Director/Chief Executive Officer of NASTEC based on a Cabinet approval, from 01 June 2003.

Ms. Wasantha Samarawickrema who joined NASTEC in February 2003, as Office Manager cum Executive Secretary 2003 resigned in May 2003 on personal grounds and Mrs. Malkanthi de Silva replaced her in June 2003.

Our Chairman Dr. R.O.B. Wijesekera was honoured at the Convocation of the Sabaragamuwa University (2002) with the honorary title of 'D.Sc' for his contributions to the development of S& T in Sri Lanka.

Miss Amali Cooray, Telephone Operator cum Receptionist resigned from her position in October, 2002. We wish her all success in her future endeavours.

NASTEC obtained the services of three Research Assistants, Ms. Nirodha Meegahakumbura, Ms. Anila Weerakkody and Mrs. Asanki Yatigamma during 2002 to assist with activities related to BICOST-II and BIMST-EC Workshops and Expert Group Meetings. They all performed their tasks extremely well and for that we say 'Thank You Very Much'.

Mr. A.D. Dhanapala, Mr. Nishantha Piyadasa (*Office Aides*), Mr. H.A. Anil Kumara Hettiarachchi and Mr. I.G. Jayashantha Prabath (*Drivers*) were confirmed in their positions during the said period.

We bid farewell to NASTEC's pioneering Chairman, Dr. R.O.B. Wijesekera who in November decided to 'call it a day'. Dr. Wijesekera, had been the Chairman since NASTEC's inception in 1998. He rendered a colossal service to the Commission through his dedication, sacrifice and guidance and was instrumental in achieving what NASTEC has achieved to date. We at NASTEC wish him continued good health and prosperity.

As in the previous year, staff took time off to celebrate the festive season as the final event for the year. This was a good opportunity for us to say 'Thank You' to all NASTEC friends and well wishers. We appreciate their generous and continuous support, cooperation and good will during the year 2002.

# Our Staff

## **Executive Staff:**

*Director / Chief Executive Officer / Senior Scientific Programme Manager*

Dr. M.C.N. Jayasuriya, B.Sc.Agric, (Cey), Ph.D. (Reading), CBiol, FIBiol (UK)

*Scientific Programme Managers*

Mr. L M M P Liyanagedara, B.Sc., M.Phil (Peradeniya)

Mrs. Amali Disanayaka, B.A. (Maine, U.S.A), M.Sc. (Colombo)

*Accountant*

Mrs. Hasitha Serasinghe, B.Sc. Accountancy (Spc.) (Sri Jayawardenapura), M.A.A.T.

*Executive Secretary*

Mrs. Malkanthi de Silva

## **Supporting Staff:**

*Programme Assistants*

Finance – Mrs. A.T.T. Jayasooriya, B.B.A  
(Colombo), ACA (P-1)

Computer Applications - Mrs. L.A.L.N.  
Liyanaarachchi, B.Sc (Sabaragamuwa)

*Personal Assistants*

Miss. Apsara Amaratunga

Miss. Asandhimithra Edirisinghe

Miss. Shakila Soysa

*Receptionist cum Telephone Operator*

Miss. Amali Cooray

*Office Aides*

Mr. A.D. Dhanapala

Mr. Nishantha Piyadasa

*Drivers*

Mr. H.A. Anil Kumara Hettiarachchi

Mr. I.G. Jayashantha Prabath

Mr. K.A. Padmasiri

*Research Assistants*

Ms. Nirodha Meegahakumbura, B.Sc. Agric,  
(Peradeniya)

Ms. Anila Weerakkody, B.Sc. (Melbourne)

Mrs. Asanki Yatigammana, B.Sc. (Colombo)

# Spending the money effectively

NASTEC Financial Report for the Year 2002 is attached.

## NATIONAL SCIENCE & TECHNOLOGY COMMISSION

### BALANCE SHEET AS AT 31.12.2002

	Schedules	Balance as at 01.01.2001	Additions/ (Disposals)	Balance as at 31.12.2002
<b>Fixed Assets*</b>				
Furniture & Office Equipment				-
Machinery	1		548,963.00	548,963.00
Publications & Other Assets				-
		-	548,963.00	548,963.00
<b>Current Assets</b>				
Distress Loan	2		332,950.00	
Advances	3		4,000.00	
Stocks - Stationery & Office Requisites	4		21,311.25	
Cash in Hand & at Bank	5		217,778.21	576,039.46
<b>Current Liabilities</b>				
Provision for Gratuity	6		26,990.00	
Accrued Expenditure	7		117,464.85	144,454.85
<b>Net Current Assets</b>				431,584.61
<b>Total Assets</b>				<b>980,547.61</b>
<b>Financed By</b>				
** Accumulative Fund				
Government Grants - Capital Adjustment in respect of Previous Year			547,500.00	
<b>Surplus/(Deficit) of Expenditure over Income</b>			433,047.61	
				<b>980,547.61</b>

\* Fixed Assets & Depreciation are subject to valuation which will be undertaken in due course by the Ministry.

\*\* Available information is incomplete . Ministry handled NASTEC finances since inception in 1998 until August 2001.

My Ref. PI/E/NASTEC/FA/2002/1

The Chairman,  
National Science and Technology Commission

**Report of the Auditor General on the Accounts of the National Science and Technology Commission for the year ended 31 December 2001 in terms of Section 14(2) (c) of the Finance Act, No.38 of 1971.**

The audit of accounts of the National Science and Technology Commission for the year ended 31 December 2001 was carried out under my direction in pursuance of provisions in Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with section 13 (1) of the Finance Act, No. 38 of 1971.

My observations which I consider should be published with the annual report of the Commission in terms of Section 14 (2) (c) of the Finance Act appear in this report. The detailed report in terms of Section 13 (7) of the Finance Act will be furnished to the Chairman of the Commission in due course.

**1.2 Scope of Audit**

Audit opinion, comments and findings in this report are based on a review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and extent of such review and tests were such as to enable as wide audit coverage as possible within the limitations of staff, other resources and time available to me. The audit was carried out in accordance with Sri Lanka Auditing Standards, methods and practices to obtain reasonable assurance as to whether the financial statements are free of material misstatements. The audit included examination of evidence supporting the amounts and disclosures in financial statements and assessments of accounting principles and significant estimates and judgments made determining whether accounting policies adopted were appropriate, consistently applied and adequately disclosed. Sub-section (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

**2. Accounts**

**2.1. Presentation of accounts**

Although the Commission started functioning from 06 December 1998, independent account keeping commenced only from 2002. Accounts of the Commission for the previous years have been included in the Ministries accounts.

## **2.2. Audit opinion**

Except for the effects of adjustments arising from matters referred to in para 2.4 of this report, I am of the opinion that financial statements have been satisfactorily prepared and presented fairly, in all material respects, the financial position of the Commission as at 31 December 2002 and the results of its operation for the year then ended, in accordance with items 01 to 05 of the Sri Lanka Accounting Standards.

## **2.3. Financial results**

According to the accounts submitted there was a surplus of Rs. 433,048/- for the year ended 31 December 2002.

## **2.4. Comments on Accounts**

### **2.4.1. Accounting shortcomings**

- a. None of the fixed assets purchased by the Ministry of Science and Technology and handed over to the Commission when the Commission was functioning as a Project under that Ministry had been disclosed in the balance sheet. The accounts disclosed only those fixed assets purchased since the date on which the Commission commenced functioning as a separate entity.
- b. Contrary to instructions in the letter No. DMS/ERST/21-7 dated 12 December 2002 of the Director General of the Management Services Department interim allowances amounting to Rs. 68,040/- has been paid to two Scientific Programme Managers recruited by the Commission on contract basis.

### **2.4.2. Lack of documentary evidence for audit**

No written evidence has been made available to audit in relation to the following.

- a. Verification reports for fixed assets valued at Rs. 548,963/-
- b. Daily attendance sheets in respect of expenditure of Rs. 1,773,408/- incurred on the biennial conference
- c. Board of Survey reports for the stock valued at Rs. 21,311/-
- d. Valuation report for rent paid to premises amounting to Rs. 600,000/-
- e. Lecture materials relating to the biennial conference expenditure amounting to Rs. 470,000/-
- f. Research Reports of Consultants and Research Assistants worth Rs. 652,548/-
- g. Procedure for selection of participants and resource persons (Consultants) for BICOST-II.

### **2.4.3. Exceptional Items**

- a. The Executive Secretary of the Commission had been over paid a sum of Rs. 4,050/- for the 3 months March to May 2002 without the approval of the Department of Management Services. He had also been overpaid a sum of Rs. 13,125/- during the balance seven months from June.
- b. An individual over the age of 55 years had been recruited as the Executive Director of the Commission contrary to the scheme of recruitment which stipulates that the appointee should be below 55 years of age.
- c. It was observed that a female who did not possess the educational qualifications and experience as stipulated in the scheme of recruitment has been appointed as a Scientific Programme Manager.

#### **2.4.4. Non-compliance with Laws, Rules and Regulations and Management Decisions**

The following instances of non-compliance were observed

- a. Action had not been taken in terms of the provisions of Sections 12, 13 (5) (D) and 13 (6) of the Finance Act No. 38 of 1971, provisions in Financial regulations 315, 757 (2) and 1645 and provisions in Sections 10 (6) and 12 (8) of Chapter II of the EC.
- b. Declaration of assets of Executive Officers had not been carried out according to the requirement based on Declaration of Assets Act No. 01 of 1975 and Amendment No. 74 of 1988.
- c. The Executive Secretary of the Commission had resigned in July 2002. Action had not been initiated to recover sum of Rs. 9,475, which was due for not giving 1 month notice in accordance with Chapter 5 (4.1) of the EC

### **3. Financial and Operational Review**

#### **3.1. Activities performed**

The Commission had conducted two public lectures, one radio programme and an exhibition. In addition 6 Research Reports have been published while 10 Conferences/Workshops had also been conducted.

#### **3.2 Uneconomic transactions**

- a. Following payments have been made for BICOST-II. A total of Rs. 420,000/- for lectures on the following basis: Rs. 30,000/- for a 20 minute lecture, Rs. 60,000/- for a 30 minute lecture; Rs. 50,000/- for an introductory lecture; Rs. 1,773,408/- as hotel accommodation of BICOST-II participants; Rs. 97,200/- for accommodating 9 lecturers for 3 days
- b. Payment of Rs. 1,773,408 for the participation of 163 at the BICOST-II, at the rate of Rs. 3,600/- per person. However, 22 of them had not registered for the Conference, which was considered as an unnecessary payment.
- c. Rs. 2,862,507 had been spent on 132 participants. According to this the cost per person was Rs. 21,658/-

The Commission had not undertaken any follow-up action regarding the outcome of this Conference.

#### **3.2. Budgetary Control**

Since a considerable fluctuation between the budgeted expenditure and the actual expenditure was observed, it appears that the budget estimate has not been used as a productive management tool.

### **4. Systems and Controls**

The Commission must pay special attention to the following.

- a. Personal Files
- b. Bank reconciliation
- c. Maintenance and use of vehicles
- d. Internal audit
- e. Leave

Signed. S.C. Mayadunne  
Auditor General

## **Response of the NASTEC to the Report of the Auditor General on the accounts of the National Science and Technology Commission for the year ending 31 December, 2002.**

The Report of Auditor General dated 30 April 2003, with regard to Accounts of NASTEC for year 2002 was received at the NASTEC Secretariat on 12 May 2003. The following are my comments on the issues raised.

### **2.4 Comments on Accounts**

#### **2.4.1 Accounting shortcomings:**

The answers are as follows:

- a). NASTEC has initiated action to obtain a valuation of assets from the Ministry for Economic Reform, Science and Technology for items purchased through the Ministry during 1999-2001. As soon as this information is received it will be included in the Assets.
- b). The interim allowance was paid to the two Scientific Programme managers on the basis of Management Services Circulars No. 07 of 11/09/2000 (para 02), and No. 12 of 18.10.2001. Furthermore, this payment was approved by the Commission at its 41<sup>st</sup> meeting held on 27<sup>th</sup> June 2002 and implemented thereafter, prior to receiving the letter of DMS dated 12/12/2002. The Commission approval was based on the letter from the DMS dated 13/11/2000 wherein it has been stated (quote) 'where the contract appointment has been made on the salary relevant to the post or on a lower scale the inclusion of the interim allowance to the salary could be considered at the renewal of the contract' (unquote), and the Management Services Circulars No.07 of 11/09/2000 (para 02), and No. 12 of 18.10.2001, which are circulars that have been effective prior to the letter of DMS dated 12/12/2002.

#### **2.4.2 Lack of written evidence for Audit**

Following are the answers to the queries raised in the report under 2.4.2.

a) **Query:** Verification reports regarding capital assets valued at Rs. 548,963/-

**Answer:** As soon as the necessary information on value of assets is obtained from the Ministry of Science and Technology it will be conveyed to the Office of the Auditor General

b) **Query:** Daily attendance register for BICOST-II participants, which recorded an expenditure amounting to Rs. 1,773,408/-

**Answer:** This was a resident workshop at which all participants who were registered were physically present on all 3 days of the Conference. Therefore, there was no need for maintaining a daily attendance register.

c) **Query:** Ref. Stock verification report for goods worth Rs. 21,311/- -

**Answer:** This report is available in the Accounts section of the Secretariat

d) **Query:** Valuation report for rent paid to office premises amounting to Rs. 600,000/-.

**Answer:** The premises was rented by the Ministry of Science and Technology in 1998, based on accepted Government tender procedures. The initial rent was

Rs. 540,000/- per year and this was subsequently increased to Rs. 600,000/- per year after 2 years and after having submitted a quotation for proposed changes to the premises to the Ministry Tender Board. In future when we either move into new premises or get alterations done to the existing premises we shall obtain the appropriate valuation report.

**e) Query:** Reports for Concept papers for BICOST-II amounting to Rs. 470,000/-

**Answer:** All relevant reports of the 10 Consultants who assisted BICOST-II are available as a common bound document (BICOST-II documentation – Part I) but they will be submitted separately as required by the Auditor General.

**f) Query:** Research Reports of Consultants and Research Assistants amounting to Rs. 652,548/-

**Answer:** The Consultancy reports referred to herein have been published as NASTEC Monographs/Policy documents and have been made available to the relevant Government institutions and to the public, at a nominal price in the case of Monographs. All reports of work undertaken by Research Assistants are also available at the NASTEC Secretariat.

**g) Query:** Lack of a procedure of selection of participants and resource persons for BICOST-II

**Answer:** Both participants and resource persons for BICOST-II were selected on the basis of a Commission approved (February 2001) document entitled ‘Rules and Regulations for the Biennial Conference on Science and Technology – BICOST Series’, which is available at the NASTEC Secretariat.

### **2.4.3 Exceptional subjects.**

The answers are as follows:

- a) Covering approval has been obtained from Mr. Pathmanathan, Deputy Secretary to the Treasury (ref. letter dated 02/12/2002) for the appointment of Executive Secretary at the specified salary scale. The appointment was also approved by the Addnl. Secretary to the Ministry of S&T by letter dated 11/06/2002 (see annexed copies of letters).
- b) With regard to the selection of a CEO above the age of 55 years the circumstances that compelled this to be done are indicated below.  
The post was advertised twice in local newspapers as well as in the internet. In spite of this there were only 3 candidates who satisfied the specifications given in the advertisement. The others (15) were rejected as their qualifications, experience and displayed leadership fell short of the specifications in the job description. A special sub-committee of the Commission consisting of the Chairman, and Commission Members Prof. Swarna Jayaweera, Prof. K.K.Y.W. Perera and Prof. A. Kovoov, along with Mr. A.W. C. Perera, Addnl. Secretary, MOST interviewed the present incumbent and concluded him unequivocally suitable for the post, the only candidate who appeared for the interview. The other two short listed candidates had declined at the last moment and did not appear for the interview as they had accepted other assignments. Therefore, there was no other alternative but to appoint the present incumbent for the post. The Addnl. Secretary to the Ministry for

Economic Reform, Science and Technology approved this appointment on 08.03.2002.

- c) This is an incorrect statement. The Officer concerned has all the educational qualifications and experience as specified in the advertisement. Documentary evidence is available at the NASTEC Secretariat. Although the degree (not a Diploma as perceived by the Audit) is specified as a BA, it is a Liberal Arts degree with a major in Biology and a minor in Chemistry. Furthermore, the very fact that the Colombo University registered the said Officer for an M.Sc. is adequate evidence that the Officer's basic qualifications have been recognized as acceptable in Sri Lanka.

#### **2.4.4 Non-compliance with Laws, Rules and Regulations and Management Decisions**

The answers are as follows:

- a) NASTEC came into operation only in December 1998. During the period 1999, 2000 and 2001 it operated as a 'Project' of the Ministry of Science and Technology. In January 2002 with the concurrence of the Treasury, NASTEC commenced maintaining its own accounts. Therefore, the submission of accounts for Auditing is relevant only for year 2002. If there are any specific issues that require clarification NASTEC could provide the necessary information.  
We also have noted the relevant paragraphs of the Finance Act, Financial Regulations and Administration Regulations for future compliance.
- c) Action will be initiated soon to arrange for the declaration of assets of the Executive Officers (Director, 2 Scientific Programme Managers, Accountant and Executive Secretary).
- c) The resignation letter of Ms. W. Samarawickrema was accepted by the Chairman on 23/05/2002, under the clause 6.2 of Chapter 6 of the Admin. Regulations.

#### **3.2. Uneconomic transactions**

The answers are as follows:

BICOST is a Conference mandated to NASTEC by the S&T Act No.11 of 1994. The Commission had decided that it should be residential and of 3-4 days duration in view of the vast area of subject matter that needs to be covered as a Biennial Conference. The Commission considered that it should be held outside Colombo so that the participants could devote their full time to the Conference proceedings, without being disturbed by day-to-day office (and home) activities. Often such Conferences go into evening sessions or even to late night sessions as was the case with both BICOST-I and BICOST-II.

Therefore, being residential there was no special requirement for maintaining a daily attendance.

Attendance: Inauguration: 77

Day 1 to Day 3: 130 each day (residential) (128 locals and 2 foreign participants),  
NASTEC staff 11

Invitees who confirmed but did not attend = 22

- a) **All resource persons were considered Consultants.** They were issued with letters of appointment as Consultants with the prior approval of the Commission. They were given a TOR and a Special Service Agreement, specifying the work that needed to be carried out. All Consultants are distinguished and well qualified scientists from the specific field of specialization. Those who were paid at the rate of Rs. 30,000 were considered to be Consultants (as specified in the DMS letter dated 29/01/2002) and have carried out a work load equivalent to 1 work month. Those who were paid at the rate of Rs. 60,000 were also considered as Consultants but to have carried out a work load equivalent to 2 work months. **The payment of Consultation fees was approved by the Commission after having given careful consideration to the contents of the final report submitted to the Commission for approval and amount of work that would have been involved (in the Commission's view) in the preparation of the report.** These reports were presented over 20 or 30 minute periods, respectively, by the Consultants. The reports were also published in Part I of the BICOST documentation series. It must also be mentioned that the resource persons not only presented the paper for 20 or 30 minutes **but also continued to be involved in the Conference activities over the 4-day period as resident participants.** They were also consulted after the Conference at the post-BICOST Workshop held on 18 February 2003, for finalizing the recommendations and the preparation of an Action Plan, which is to be presented to the Minister of S&T soon. Furthermore, the resource persons had to spend quite some time doing research prior to the preparation and presentation of the report, the contents of which were approved by a specialist BICOST Steering Committee and the Commission. Therefore, it is not correct to suggest that the payments should reflect work related to the 20 or 30 minutes of presentation only.
- The payment of Rs. 50,000 was paid to a Specialist Consultant who was issued with the letter of appointment as a Specialist Consultant with the approval of the Commission, along with a TOR. The consultancy was for the specific purpose of reviewing the implementation of BICOST-I recommendations by various R&D institutions. This report, which was presented at BICOST-II will also be published in Part II of the BICOST –II series.
- The Conference is a mandated activity of NASTEC (by S&T Act No. 11 of 1994) and was held with the full consent and prior approval of the Minister for Economic Reform, Science and Technology.
- b) It is correct that 22 participants who had confirmed their participation did not register at the hotel. As required by the hotel the number of participants had to be finalized and confirmed in advance - a week prior to the Conference. This lapse by the scientific community is much regretted. In fact the Chairman, has intimated to them the Commission's disapproval with regard to this incident by letter dated 30 September 2002.
- d) The total cost for 132 participants was Rs. 2, 862,507/-. This biennial conference is a mandated activity of NASTEC according to the S&T Act No. 11 of 1994.

The Preliminary Report as required by the Act has already been handed over to the Hon. Minister for Science and Technology. The final Recommendations and the

proposed Action Plan will be sent to the Ministry and also circulated to all Government S&T Institutions by June 2003.

Recommendations arising from the Conference have to be implemented by the Government and Institutions concerned. The review of implementation of Recommendations of BICOST-II will be carried out prior to BICOST-III, which has been planned for September 2004.

**4. Systems and Controls**

Noted for future compliance

Signed. Prof. T.Vitarana  
Chairman, NASTEC (2003)

30 May 2003